

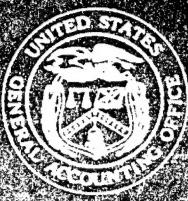
GAO

BUDGET AND PROGRAM COMPARABLE  
PAY STUDY

June 1992

## PAY EQUITY

# Washington State's Efforts to Address Comparable Worth



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Pay Equity:  
Washington State's  
Efforts to  
Address Comparable  
Worth

July 1, 1992

The Honorable John Glenn  
Chairman, Committee on Governmental Affairs  
United States Senate

The Honorable William L. Clay  
Chairman, Committee on Post Office and  
Civil Service  
House of Representatives

The Honorable Gary L. Ackerman  
Chairman, Subcommittee on Compensation and  
Employee Benefits  
Committee on Post Office and Civil Service  
House of Representatives

The Honorable Alan Cranston  
United States Senate

The Honorable Dennis DeConcini  
United States Senate

The Honorable Mary Rose Oakar  
House of Representatives

The Honorable Vic Fazio  
House of Representatives

The Honorable Steny Hoyer  
House of Representatives

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This briefing report responds in part to your request for information on nonfederal governmental efforts to provide equal pay for work of comparable value. It reviews the actions taken to date by the state of Washington, which is often cited as being in the forefront of efforts to address comparable worth. We are continuing our efforts to look at (1) whether the federal government's factor evaluation system is affected by gender and/or race disparity and (2) other nonfederal governmental efforts to address comparable worth.

On June 25, 1992, we briefed Congresswoman Oakar, her staff, and representatives of the Chairman of the Committee on Post Office and Civil

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Service on the results of our work on the state of Washington's efforts to bring about comparable worth. This letter summarizes the information provided at that briefing. A more extensive discussion is in appendix I.

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## Background

As of December 1991, the state of Washington had 59,114 classified<sup>1</sup> state employees in 3,173 occupations or jobs. Two state agencies administer the personnel systems for state employees. The Department of Personnel manages the system covering general government state employees, or about 69 percent of the total, and the Higher Education Personnel Board manages the system for employees of the state's colleges and universities, the remaining 31 percent.

Washington State has been examining issues related to comparable worth for nearly 20 years. Between 1973 and 1982, the state conducted several studies examining salary differences between comparably valued jobs in its workforce and found that salaries for female-dominated jobs were approximately 80 percent of those for male-dominated jobs.<sup>2</sup> In 1977, the state amended its civil service laws to require the two personnel agencies to estimate the cost of comparable worth as a part of each salary survey. However, the state legislature did not enact a law or appropriate funds for this purpose until 1983. The law required achieving comparable worth for the jobs of all employees by June 30, 1993.

In 1982, the American Federation of State, County, and Municipal Employees (AFSCME), the Washington Federation of State Employees (the Federation), and nine individual plaintiffs filed suit against the state for violation of Title VII of the Civil Rights Act of 1964, claiming discrimination in compensation based on gender. In August 1983, the case went to trial, and in September 1983 a U.S. district court ruled that the state had violated Title VII by discriminating against female employees. The court ordered immediate implementation of comparable worth and back pay. The state appealed, and the Ninth Circuit Court of Appeals overturned the district court's decision in September 1985. The plaintiffs appealed the reversal.

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<sup>1</sup>The state of Washington defines "classified" employees as those subject to the provisions of chapter 41.06 of the Revised Code of Washington (state civil service law).

<sup>2</sup>The state determines a job's "value" using a set of factors—variations of skills, effort, responsibility, and working conditions—and adding the points assigned to each factor to obtain a job worth score. The state initially defined female-dominated jobs as those with incumbents that were two-thirds or more female and male-dominated jobs as those with incumbents that were two-thirds or more male. In a subsequent study, a consultant used 70 percent rather than two-thirds, which is the definition we use in this report. The state does not have a current definition for gender dominance.

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In June 1985, while the lawsuit was still on appeal, the state legislature appropriated \$41.4 million to implement comparable worth, contingent upon the dismissal of all claims under the lawsuit and with the stipulation that an agreement be reached by January 1, 1986. One day before the deadline, representatives from the Governor's office, the state Attorney General's office, AFSCME, the Federation, and the individual plaintiffs signed an agreement. To comply with the agreement, the state agreed to make annual adjustments to bring all salaries up to 95 percent or more of a designated salary line by June 30, 1993. In return, the plaintiffs agreed not to assert any claims upon the state through June 30, 1993. Although this agreement was called a "comparable worth agreement," its goal was to narrow the difference between salaries for jobs of comparable worth, not necessarily to eliminate it. The agreement did not require the state to consider the race or gender of incumbents when determining a job's eligibility for comparable worth adjustments. The agreement went into effect in April 1986.

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## Results

Washington State has made progress toward complying with the 1985 comparable worth agreement, reducing from 40 percent to 17 percent the number of benchmark jobs<sup>3</sup> below the 95-percent target salary line. Our review of 1985 salaries for the 109 benchmark jobs used to construct the designated salary line contained in the agreement showed that 65 of the jobs were on or above the 95-percent target salary line, and 44 were below it. In contrast, our review of salaries for these same jobs as of January 1, 1991, showed that 90 jobs were on or above the target salary line and 19 jobs were below it.<sup>4</sup> Our study was completed at an interim point during the phased implementation of the agreement. State officials told us that, according to their calculations, the state will be in full compliance with the agreement as of July 1, 1992.

For a further look at the effect of comparable worth adjustments, we reviewed the 1991 salaries for an additional 429 jobs—all of the general government jobs that (1) had been evaluated on the state's point factor job evaluation system with job worth scores that had not changed between

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<sup>3</sup>The state refers to the jobs selected for its biennial salary survey as "benchmark jobs" or "benchmarks." Examples of jobs selected to be benchmarks include secretary, civil engineer, and maintenance electrician.

<sup>4</sup>We measured the state's progress toward complying with the agreement based on benchmark jobs because these were the jobs the state used in the agreement. Also, because job worth scores were not determined for all state jobs, we could not calculate the position of all jobs relative to the target salary line. Therefore, we cannot determine exactly how many state employees or jobs fell below the target salary line in 1991.

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1985 and 1991, (2) had incumbents in both years, (3) were not exempt from the standard pay schedule, and (4) were not revised between 1985 and 1991. With the comparable worth increases made since 1986, 72 percent of these jobs were on or above the 95-percent target salary line; without the comparable worth increases, only 42 percent would have been on or above the line.

Between 1985 and 1991, Washington State's legislature appropriated about \$115 million for comparable worth adjustments. Because the amounts appropriated for comparable worth adjustments increase the cost for salaries in the following years, we estimated the actual cost to the state by compounding the appropriations over the term of the agreement. We estimated that the total cost will be approximately \$570.7 million for fiscal years 1986-93. This amount constitutes about 2.59 percent of projected state salaries and benefits for all state employees (not just those eligible for comparable worth) for the same period.

We also examined the 429 general government jobs to determine the impact of the state's agreement on the difference in salaries between male- and female-dominated jobs of comparable value. Stated as a percentage of salaries for comparably valued male-dominated jobs, salaries for female-dominated jobs have increased, particularly for jobs with lower job worth scores. Salaries for female-dominated jobs with lower job worth scores increased from an average of 80 percent of salaries for male-dominated jobs in 1985 to an average of 90 percent in 1991. Pay for male- and female-dominated jobs with higher job worth scores was already much closer in 1985—in some cases as high as 99 percent—and little change has occurred.

Our review of the relationship between job worth scores and pay for jobs with the same gender composition showed that disparities still exist for some jobs.<sup>5</sup> For example, warehouse workers and truck drivers, which are both male-dominated jobs, have the same job worth score (97), but their 1985 average monthly salaries differed by \$148 (\$1,574 for truck drivers, \$1,426 for warehouse workers). In 1991, truck drivers still had an average monthly salary that was \$165 higher than that for warehouse workers (\$1,873 compared with \$1,708).

We had planned to determine how the mix of men and women in the state's workforce had changed since the comparable worth adjustments

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<sup>5</sup>The agreement does not call for jobs above the target salary line, with the same points, to be paid the same. The state did not reduce any salaries as part of the implementation of comparable worth, and this situation inherently allows for salary disparity in some instances.

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were first made; however, state officials said the data needed to complete this analysis were not readily available.

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## Approach

To determine what actions the state has taken to implement comparable worth, we interviewed state officials and obtained background information on comparable worth from several unions and autonomous organizations. We also reviewed independent studies and articles to obtain historical information.

To determine what progress the state has made to date, we adjusted the 1985 designated salary line for general salary increases and compared the 1991 salaries with it. We used regression analysis, a common statistical technique for estimating the extent to which two variables are related. This technique enabled us to place a best-fitting straight line, called a "regression line," through two sets of correlated data. The two sets of data include the salaries and the job worth scores for the 109 benchmarks. This methodology is explained in more detail in appendix II. We did not review the state's method of selecting benchmark jobs or its job evaluation system.

We did our review between February 1991 and June 1992 in accordance with generally accepted government auditing standards. We did not obtain official agency comments, however, we did discuss informally the contents of this report with Washington State officials. They generally agreed with the information presented. We made technical changes to the report based on their comments. We also shared the results of our analyses with representatives of AFSCME and its local affiliate, the Washington Federation of State Employees, and they generally agreed with our results.

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We are sending this report to other interested Members of Congress and congressional committees, Washington State officials, and other interested parties. Copies will also be made available to others upon request.

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Major contributors to this briefing report are listed in appendix III. If you have any questions about the report, please call me at (202) 275-5074.

*Bernard L. Ungar*

Bernard L. Ungar  
Director, Federal Human Resource  
Management Issues



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**Contents**

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**Abbreviation**

AFSCME      American Federation of State, County, and Municipal  
Employees

# Analysis of Washington State's Comparable Worth Agreement

## Washington State Personnel Systems as of December 1991

- Department of Personnel
  - 41,080 employees
  - 69 percent of the state workforce
  - 1,897 jobs
- Higher Education Personnel Board
  - 18,034 employees
  - 31 percent of the workforce
  - 1,276 jobs

### Washington State Personnel Systems as of December 1991

As of December 1991, the state of Washington had 59,114 classified state employees in 3,173 occupations or jobs. Two state agencies administer the personnel systems for state employees. The Department of Personnel manages the personnel system covering general state government employees, or 69 percent of the total, and the Higher Education Personnel Board manages the system for employees of the state's colleges and universities, the remaining 31 percent.

## **Early Studies Found Female-Dominated Jobs Paid Less**

- Between 1973 and 1982, studies found that salaries for female-dominated jobs were approximately 80 percent of salaries for comparably valued male-dominated jobs

### **Early Studies Found Female-Dominated Jobs Paid Less**

In 1973, at the Governor's request, the two personnel agencies studied their pay plans to identify female-dominated<sup>6</sup> jobs that required skills and responsibilities that were comparable<sup>7</sup> to male-dominated jobs but received lower compensation. The study found indications of pay

<sup>6</sup>This study defined female-dominated jobs as those in which two-thirds or more of the incumbents were female, and male-dominated jobs as those in which two-thirds or more of the incumbents were male. In a subsequent study, the consultant used 70 percent rather than two-thirds to define male- and female-dominated jobs. In keeping with the more recent study, we used 70 percent for our analyses.

<sup>7</sup>To determine which jobs were of comparable value, the state used a point factor job evaluation system. To develop such a system, an organization selects a set of weighted factors to reflect how it values work. These "compensable factors" are commonly variants of skill, effort, responsibility, and working conditions. The organization then evaluates each job by totaling the points assigned to each factor to obtain a job worth score, which measures the relative importance of each job to the organization.

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differences between male- and female-dominated jobs within both state systems but also called for further study using more sophisticated (1) methods for measuring job worth and (2) sampling techniques and statistical analyses.

In 1974, the state hired an independent consultant, Norman D. Willis & Associates, to conduct a more in-depth study of internal equity in its pay systems. The 1974 Willis study used a methodology similar to the one used by the Department of Personnel and the Higher Education Personnel Board in their preliminary studies; however, a different point factor job evaluation system and more sophisticated sampling techniques were used.<sup>8</sup> The 1974 Willis study found that female-dominated jobs were paid about 80 percent of the pay for comparably valued male-dominated jobs.

Between 1976 and 1982, the state continued to update its comparable worth studies. In 1977, the state amended its civil service laws to require the two personnel agencies to submit supplemental salary schedules as a part of each salary survey. The purpose of these schedules was to recalculate the cost of comparable worth given the results of the state's most recent salary surveys. The law did not require these schedules to include gender data, and they did not. The state legislature did not fund the comparable worth adjustments that these schedules deemed appropriate.

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<sup>8</sup>This study coined the term "comparable worth" that is often used to refer to the theory that the salaries for jobs done mainly by women should be the same as those for jobs done by men, if the work is valued equally by the employer.

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## **History of Events Leading to Washington State's Agreement**

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- July 1982**  
Plaintiffs charged state with violation of title VII
  - May 1983**  
State enacted law mandating comparable worth
  - September 1983**  
District court ruled state violated title VII; state appealed to Ninth Circuit Court
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### **History of Events Leading to Washington State's Agreement**

In July 1982, the American Federation of State, County, and Municipal Employees (AFSCME), the Washington Federation of State Employees, and nine individual plaintiffs filed suit against the state of Washington for violation of Title VII of the Civil Rights Act of 1964, claiming discrimination in compensation based on gender. The basis of the charge was that the state compensated employees in female-dominated jobs at lower rates of pay than employees in male-dominated jobs determined to be of comparable worth.

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In May 1983, the state enacted a law requiring annual increases in salaries solely for the purpose of achieving comparable worth. This law also mandated that comparable worth for the jobs of all employees be fully achieved by June 30, 1993. The law defined comparable worth as the provision of "similar" salaries for positions that require or impose similar responsibilities, judgments, knowledge, skills, and working conditions. The state legislature appropriated \$1.53 million in 1983 to implement the law—enough to increase the average monthly salary of each eligible employee by \$8.33.

In September 1983, the U.S. District Court for the Western District of Washington ruled that the state had violated Title VII by discriminating against female employees. The court ordered immediate implementation of comparable worth and back pay. The state appealed the ruling to the Ninth Circuit Court of Appeals.

## History of Events, continued

- **June 1985**  
State legislature appropriated monies for settlement if agreement reached by January 1, 1986
- **September 1985**  
Ninth Circuit overturned district court's ruling; plaintiffs appealed reversal
- **December 1985**  
State and plaintiffs reached agreement December 31, 1985

In June 1985, while the lawsuit was still on appeal, the state legislature appropriated \$41.4 million to implement comparable worth, contingent upon the dismissal of all claims pursuant to the lawsuit and with the stipulation that an agreement be reached by January 1, 1986. Between June and December 1985, negotiators representing the Governor, the state Attorney General's office, and the plaintiffs worked to reach an agreement acceptable to all sides.

In September 1985, a three-judge panel for the Ninth Circuit Court of Appeals overturned the district court's decision. The plaintiffs filed a petition requesting that the Ninth Circuit undertake a full court review.

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On December 31, 1985, 1 day before the deadline, the plaintiffs and the state of Washington entered into an agreement for the stated purpose of implementing the state's comparable worth legislation passed in 1983 and resolving the litigation in the 1982 lawsuit. The agreement required the state to bring all salaries up to 95 percent or more of a salary line constructed using state salaries and job worth scores as of January 1, 1985. AFSCME agreed to refrain from seeking further court review of the Ninth Circuit Court panel's opinion and to take no legal action based on the state's implementation of its comparable worth plan. The agreement became effective in April 1986, having been ratified by the Washington State legislature and approved by the District Court for the Western District of Washington.

## **Terms of Agreement**

- State agreed to bring all salaries up to 95 percent or more of a salary line constructed using January 1, 1985 salaries
- Plaintiffs agreed not to assert any claims upon the state through 1993

**(Eligibility for comparable worth not determined by gender)**

### **Terms of Agreement**

The agreement required the state, by June 30, 1993, to bring all salaries up to at least 95 percent of a designated salary line (referred to in the agreement as the "actual average salary line") that was constructed using the salaries for benchmark jobs as of January 1, 1985.<sup>9</sup> This line was calculated using a statistical technique called "regression analysis." Through the use of regression analysis, state analysts drew the best-fitting straight line, or the regression line, through the set of points plotted with total job worth points on the horizontal axis and salaries on the vertical

<sup>9</sup>A benchmark job is one the state has included in its biennial salary surveys. In 1990, the state selected benchmark jobs on the basis of the seven criteria outlined in its 1990 Salary and Fringe Benefit Survey Plan. These criteria included, among other things, how readily the jobs could be compared to jobs outside state government and whether a sufficient number of similar jobs exist among outside employers to provide a valid basis for recommending salary changes.

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axis. Our reconstruction of the actual average salary line based on salaries and job worth points for benchmarks as of January 1, 1985, is shown in figure I.1. The points within the figure plot the salary for each job relative to its job worth score.

Although Washington State's agreement is commonly referred to as a "comparable worth agreement," it does not require that all comparably valued jobs receive the same salaries. Rather, Washington's approach has raised or should raise the salaries for lower-paying jobs to an agreed-upon level—the target salary line.<sup>10</sup> In addition, the agreement did not require the state to consider the incumbent's race or gender when determining a job's eligibility for comparable worth adjustments.

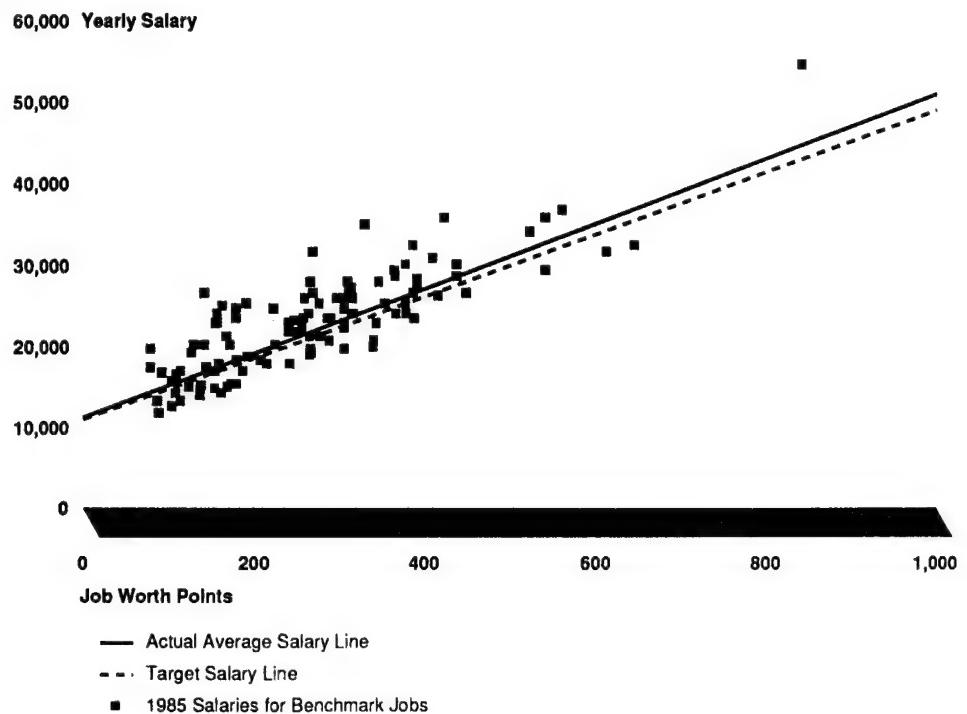
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<sup>10</sup>For this report, we call the state's goal—the 95-percent line—the "target salary line." The dotted line in figure I.1 represents this target salary line.

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**Figure I.1: Washington State's Actual  
and Target Salary Lines, 1985**



## **State Has Made Progress Toward Compliance**

**Before 1986, of the 109  
benchmark jobs**

- 65 were on or above the target salary line
- 44 were below the line
- 17 were female dominated
- 13 were mixed
- 7 were male dominated
- 7 could not be determined

### **State Has Made Progress Toward Compliance**

Before the agreement, 65 of the 109 benchmark jobs were on or above the target salary line, and 44 were below. Of the 65 above the line, 2 were female dominated, 17 were mixed,<sup>11</sup> and 38 were male dominated. We could not determine the gender composition of the remaining eight jobs.<sup>12</sup> Of the 44 jobs below the line, 17 were female dominated, 13 were mixed, and 7 were male dominated. We could not determine the gender composition of the remaining seven jobs.

<sup>11</sup>Mixed jobs are those in which neither gender accounts for 70 percent or more of the incumbents.

<sup>12</sup>These eight jobs are included in the decentralized system administered by the Higher Education Personnel Board, and it does not have consolidated data readily available for all of the colleges and universities within its purview.

## **State Has Made Progress Toward Compliance**

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**In 1991, of the 109  
benchmark jobs**

- 90 were on or above the target salary line
  - 19 were below the line
    - 8 were female dominated
    - 9 were mixed
    - 2 were male dominated
- 

In order to assess whether the state has made progress toward complying with the agreement, we constructed a 1991 target salary line (by adjusting the 1985 target salary line for general salary increases) and, using 1991 salaries, plotted on a graph the relative position of the 109 benchmark jobs to this line. We found that in 1991, 90 were on or above the target salary line and 19 were below it. Of the 90 jobs above the line, 31 were mixed, 16 were female dominated, and 42 were male dominated. We could not determine the gender composition of the one remaining job. Of the 19 jobs below the line, 9 were mixed, 8 were female dominated, and 2 were male dominated. Figure I.2 shows a comparison of the number of benchmarks on or above and below the target salary line in 1985 and 1991.

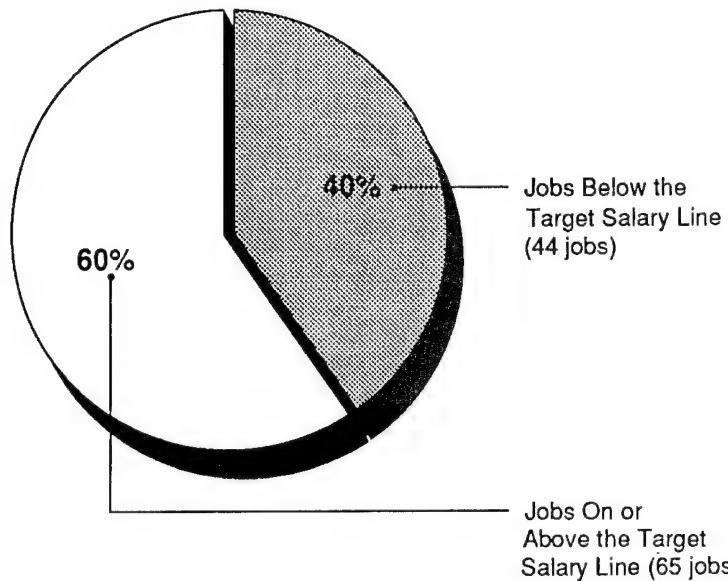
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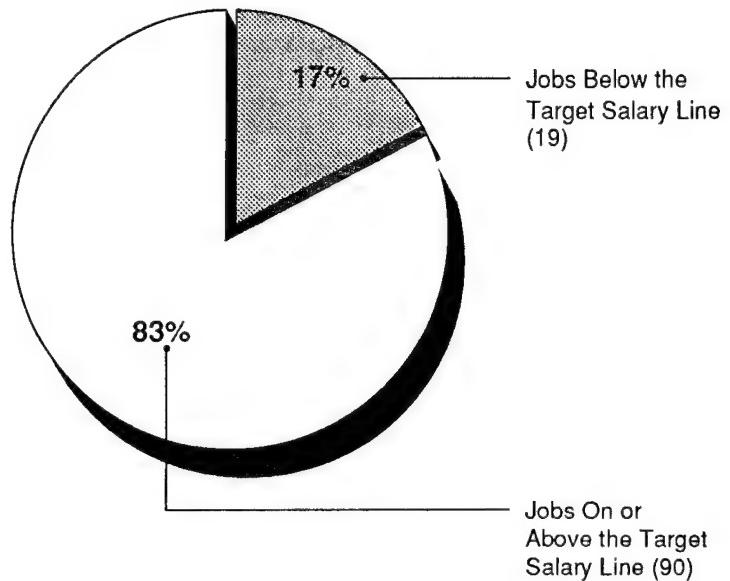
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**Figure I.2: Distribution of 109 Benchmark Jobs Above and Below the Agreement's Target Salary Line, 1985 and 1991**

1985



1991<sup>a</sup>



Note: These charts cover 109 of the state's 3,173 jobs.

<sup>a</sup>This chart shows the position of the benchmark jobs relative to the target salary line as of January 1, 1991. This date was an interim point in the implementation of the agreement.

In addition to reviewing the benchmark jobs, we examined 429 general government jobs to determine their relationship to the 1991 target salary line. These 429 jobs included all of the general government jobs that (1) had been evaluated on the state's point factor job evaluation system with job worth scores that had not changed between 1985 and 1991, (2) had incumbents in both years, (3) were not exempt from the standard pay schedule, and (4) were not revised between 1985 and 1991. (See app. II for an explanation of the methodology we used to select the 429 jobs).<sup>13</sup> We found that 309—or 72 percent—of the 429 jobs were on or above the target salary line in 1991. One hundred and twenty jobs (or 28 percent) were below the line. Of the jobs below the line, 70 were female dominated, 36 were mixed, and 14 were male dominated.

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<sup>13</sup>These 429 jobs include approximately 41 percent of the state's employees.

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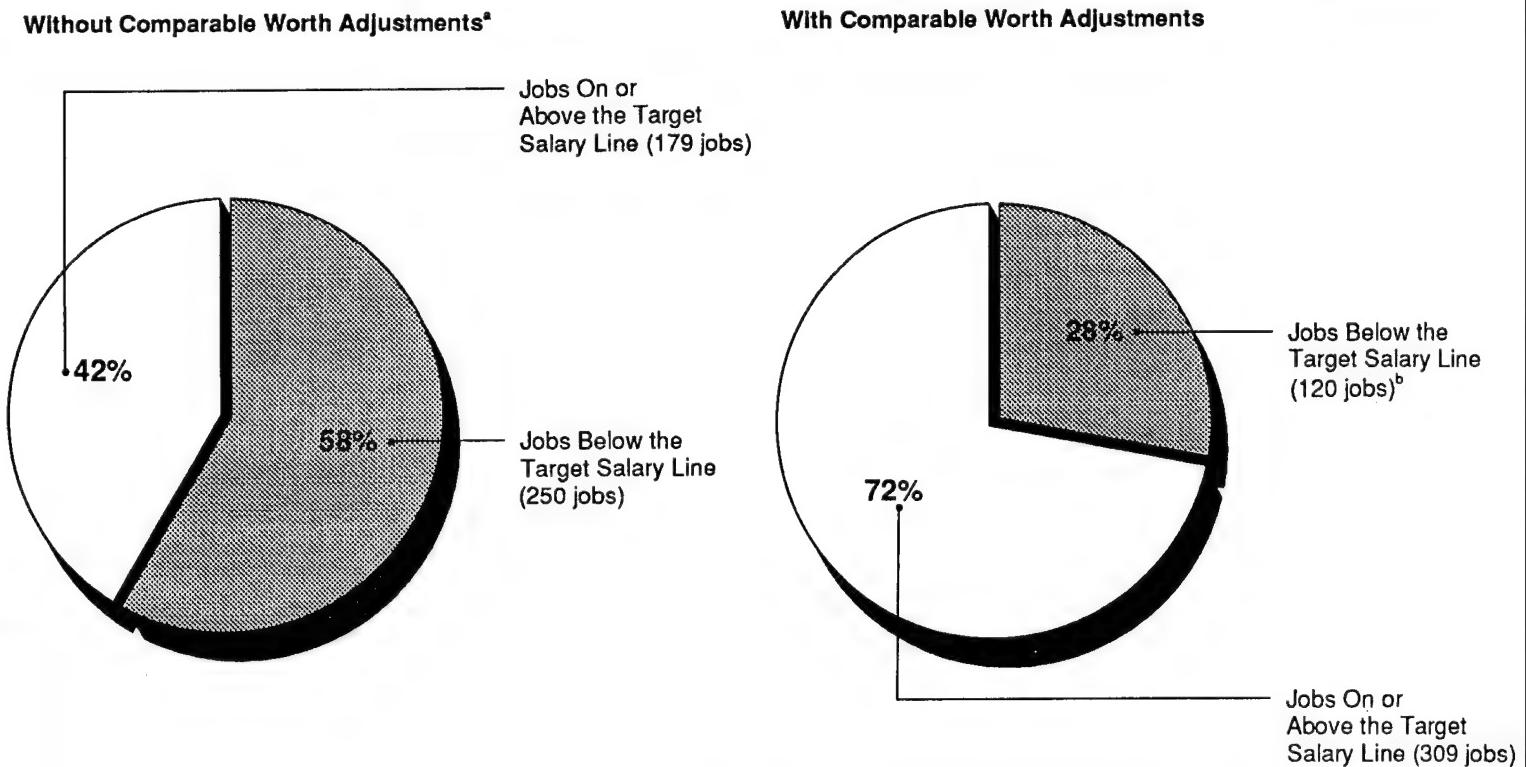
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We also estimated what the salaries for these 429 jobs would have been if the state had not implemented its agreement. We found that without comparable worth adjustments, 179 jobs—or 42 percent—would have been on or above the target salary line in 1991. Two hundred and fifty jobs—or 58 percent—would have been below the line. Figure I.3 shows a comparison of these 429 jobs with and without comparable worth adjustments.

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**Figure I.3: Distribution of 429 General Government Jobs Above and Below the Agreement's Target Salary Line In 1991**



Note 1: These 429 jobs cover 24,112 general government employees, or about 41 percent of the state's work force.

Note 2: This chart shows the position of 429 general government jobs relative to the target salary line as of January 1, 1991. This date was an interim point in the implementation of the agreement.

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<sup>a</sup>These are the hypothetical salaries that would have been paid if the state had funded general salary increases but not the comparable worth adjustments.

<sup>b</sup>The 120 general government jobs that were below the line in 1991 represent 8,580, or 36 percent, of the 24,112 employees in the 429 general government jobs we examined.

## **Estimated Cost of Implementing Agreement**

- State appropriated \$115 million for comparable worth adjustments for fiscal years 1986 through 1993
- Compounded cost over the 8-year period equalled an estimated \$571 million
- Compounded cost represents about 2.6 percent of all state salaries and benefits for the same 8-year period

### **Estimated Cost of Implementing Agreement**

Between 1985 and 1991, the Washington State legislature appropriated about \$115 million for comparable worth adjustments. Since the amount appropriated for comparable worth adjustments increases the base salaries for subsequent years, the total cost associated with comparable worth adjustments is actually higher. For example, \$40 million appropriated for comparable worth adjustments in 1 fiscal year will also appear in subsequent years' salary costs, even though it is no longer specifically earmarked as a comparable worth adjustment. We estimated the actual cost to the state of implementing comparable worth by compounding the appropriations over the term of the agreement. As shown in table I.1, we estimate the total compounded appropriations to be

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\$570.7 million for fiscal years 1986-1993. This amount was about 2.59 percent of all state salaries and benefits for the period.

**Table I.1: Estimated Cost of Implementing Comparable Worth, Fiscal Years 1986-1993**

Fiscal year	Appropriation	Compounded appropriations	Compounded appropriations as a percent of total expenditures for all state salaries and benefits
1986 and 1987	\$41,427,000	\$41,427,000	0.98
1988	8,100,000	50,562,675	2.18
1989	16,200,000	68,102,586	2.53
1990	6,427,000	76,572,664	2.75
1991	12,854,000	91,340,981	2.93
1992	15,000,000	111,821,440	3.30
1993	15,000,000	130,847,012	3.67
<b>Total</b>	<b>115,008,000</b>	<b>570,674,358</b>	<b>2.59</b>

Note 1: To construct table I.1, we used the total funds appropriated for comparable worth adjustments as contained in state law because the state did not capture actual expenditures for comparable worth for all state jobs. We adjusted the appropriations by multiplying each year's compounded appropriation by the previous year's inflation-based general salary increase.

Note 2: We used expenditures for all state salaries and benefits because consolidated data on final appropriations were not available. The costs we report include expenditures for certain jobs that are not eligible for comparable worth adjustments. Therefore, many more employees are included in the total expenditures for all state salaries and benefits than could have been affected by the implementation of comparable worth. The expenditures for all state salaries and benefits for fiscal years 1992 and 1993 are estimates from the state agencies' spending plans.

## Relative Salaries for Female-Dominated Jobs Increased

- At the lower end of the job worth scale, pay for female-dominated jobs increased from about 80 percent to about 90 percent of that for comparably valued male-dominated jobs between 1985 and 1991
- At the upper end of the scale, pay for female-dominated jobs increased from 95.17 percent to 96.14 percent

### Relative Salaries for Female-Dominated Jobs Increased

Our analysis of 429 general government jobs found that, stated as a percent of salaries for comparably valued male-dominated jobs, salaries for female-dominated jobs have increased since the implementation of the agreement, particularly for jobs with low- to mid-range job worth scores. Table I.2 shows this reduction in the difference between salaries for male- and female-dominated jobs. Table I.2 also shows salaries for female-dominated jobs as a percent of salaries for male-dominated jobs for 17 job worth score intervals for 1985 and 1991.<sup>14</sup> The following differences

<sup>14</sup>Table I.2 shows intervals of job worth scores that vary by 10 to 12 percent (e.g., the first interval includes scores from 91 to 101). We chose intervals of 10 to 12 percent based upon advice from a member of the firm that developed the state's point factor evaluation system. The spokesperson said that it is logical to group jobs with job worth scores within 10 to 12 percent of each other in the same category for compensation purposes.

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in the relationship that exists between salaries and job worth scores are shown in table I.2:

- At the lower end of the job worth scale, salaries for female-dominated jobs have moved from pay that averaged about 80 percent of that for male-dominated jobs in 1985 to pay that averaged about 90 percent in 1991.
- At the upper end of the scale, where pay for female- and male-dominated jobs was much closer in 1985, little change has occurred. For example, average salaries for female-dominated jobs valued between 602 and 665 points increased from 95.17 percent of the salaries for male-dominated jobs in 1985 to 96.14 percent in 1991—an increase of 0.97 of one percentage point.

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**Appendix I**  
**Analysis of Washington State's Comparable**  
**Worth Agreement**

**Table I.2: Comparison of 1985 and 1991 Salaries for Female-Dominated Jobs as a Percentage of Salaries for Comparable Male-Dominated Jobs**

<b>Job worth score<sup>a</sup></b>	<b>Average salaries for female-dominated jobs as a percent of average salaries for male-dominated jobs</b>		<b>Difference (percent change in wage gap)</b>
	<b>1985</b>	<b>1991</b>	
91-101	81.51	86.96	5.45
102-113	81.19	91.13	9.94
127-140	81.21	93.78	12.57
141-156	72.35	85.40	13.05
157-174	82.93	89.46	6.53
175-193	78.84	88.83	9.99
194-214	75.57	84.15	8.58
215-238	94.20	96.00	1.80
239-264	81.91	86.08	4.17
265-293	85.41	85.50	0.09
294-325	99.20	97.66	(1.54) <sup>b</sup>
326-360	91.65	94.14	2.49
361-399	88.20	90.29	2.09
400-442	99.55	95.54	(4.01) <sup>b</sup>
443-490	97.47	96.97	(0.50) <sup>b</sup>
491-543	92.61	92.65	0.04
602-665	95.17	96.14	0.97

<sup>a</sup>Job worth score intervals 81-90 and 114-126 are missing from the table because, for the set of data we used, no male-dominated jobs existed in these intervals. Similarly, interval 544-601 is missing because no female-dominated jobs were in the interval.

<sup>b</sup>In 1991, the state increased the salaries for all jobs up to an amount which was 20 percent below the prevailing market rates as shown in the 1988 state salary survey. The relative decrease in salaries for female-dominated jobs occurred because either (1) more male-dominated jobs than female-dominated jobs received prevailing wage increases or (2) male-dominated jobs received larger prevailing wage increases than female-dominated jobs.

## **Agreement Not Intended to Eliminate All Disparities**

### **Disparities Exist Even When Gender Composition Is Similar**

- Truck driver and warehouse worker (job worth score = 97)
  - 1985--\$1,574 v. \$1,426
  - 1991--\$1,873 v. \$1,708
- Computer input scheduler and administrative assistant (job worth score = 187)
  - 1985--\$1,536 v. \$1,392
  - 1991--\$1,873 v. \$1,802

## **Agreement Not Intended to Eliminate All Disparities**

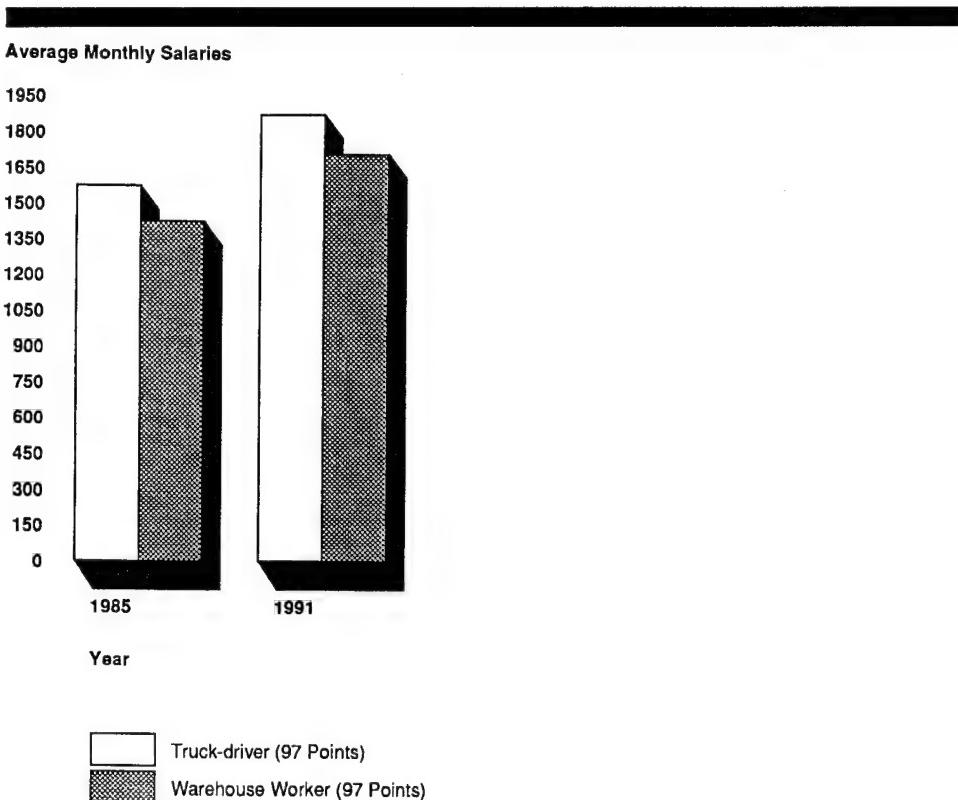
We also compared the relationship between job worth scores and pay for jobs with similar gender compositions and found that disparities still exist.

For example, warehouse workers and truck drivers, which are both male-dominated jobs, have the same job worth score (97), but in 1985 the average monthly salaries for the two jobs differed by \$148 (\$1,574 for truck drivers, \$1,426 for warehouse workers). In 1991, truck drivers still had an average monthly salary that was higher than that for warehouse workers by \$165 (\$1,873 compared with \$1,708). (See fig. I.4.)

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**Appendix I**  
**Analysis of Washington State's Comparable  
Worth Agreement**

**Figure I.4: Salaries for Two  
Male-Dominated Jobs With the Same  
Job Worth Scores Continued to Differ**



Note: Because these jobs were both above the target salary line before the agreement took effect and received only general pay increases, they continue to maintain the same relationship to each other.

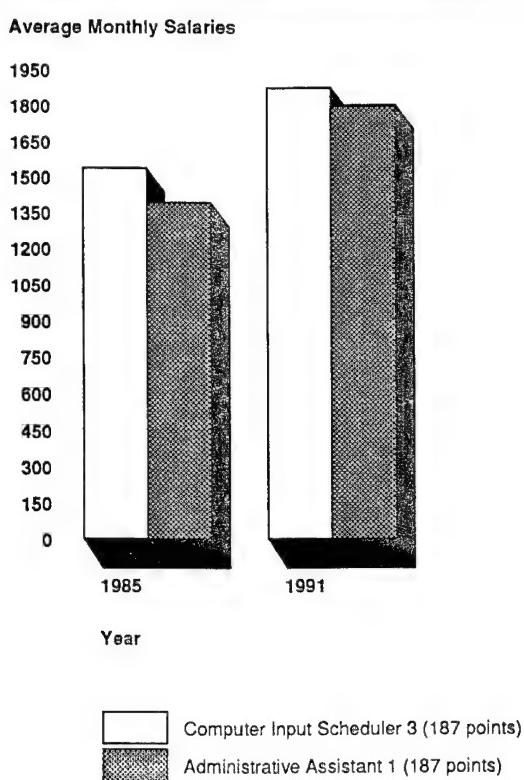
Another example can be seen in a comparison between computer input schedulers and administrative assistants, both female-dominated jobs, which are valued at 187 points. In 1985 their average monthly salaries differed by \$144 (\$1,536 for computer input schedulers and \$1,392 for administrative assistants). However, in 1991, even though administrative assistants had received comparable worth adjustments larger than those received by computer input schedulers, average monthly salaries still differed by \$71 (\$1,873 for computer input schedulers and \$1,802 for administrative assistants). (See fig. I.5.)

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**Appendix I**  
**Analysis of Washington State's Comparable  
Worth Agreement**

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**Figure I.5: Salaries for Two  
Female-Dominated Jobs With the  
Same Job Worth Scores Continued to  
Differ**



Note: Due to their relative positions to the target salary line before the agreement took effect, the agreement did not require that these two jobs be paid the same.

# Objectives, Scope, and Methodology

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Three Chairmen and five Members of Congress asked us to review nonfederal efforts undertaken to address comparable worth as a part of our examination of the federal government's factor evaluation system. We selected the state of Washington for review because it is often cited as being in the forefront of efforts to address comparable worth. The objectives of our review were to determine

- the state's actions taken to implement comparable worth and
- the state's progress to date.

To determine what actions the state has taken to implement comparable worth, we interviewed state officials at the Department of Personnel, the Higher Education Personnel Board, the state Attorney General's office, the Office of Financial Management, and the Washington State legislature. We obtained background information on comparable worth in Washington State by interviewing officials from the Washington Federation of State Employees, the Service Employees International Union, the Washington State Nurses Association, Washington Women United, the American Association of University Women, and the National Organization for Women. We also reviewed independent studies and related articles to obtain historical information.

We obtained data on state salaries, job worth scores, and characteristics of the state's workforce from a state analyst at the University of Washington, the Department of Personnel's employee history files, and the Office of Financial Management's personnel database. We also had data from the Department of Personnel's compensation plans and table of evaluations keypunched to add to our data file. We did not verify the accuracy of the data we obtained.

To determine what progress the state has made to date, we used regression analysis to calculate the line of best fit between state salaries and job worth scores for a sample of state jobs.

Our first regression analysis was based on salaries and job worth scores for the state's benchmark jobs. Benchmark jobs are those that the state selects for use in its biennial salary surveys and that can be incorporated in either of the state's two personnel systems. The state considers a number of factors when selecting benchmark jobs including, among other things, whether the job can be clearly described and readily compared with private and other public sector jobs and whether enough similar jobs exist in these two areas to provide a valid basis for recommending salary

changes. For consistency, we chose to examine the jobs that were benchmarks in 1984 because they were used to construct the target salary line contained in the state's agreement.

For this regression analysis, as well as for others we conducted, we used the salary amounts for a "Step G" in the salary schedule. We chose Step G because it is the step closest to the arithmetic middle of the salary range and also the step the state used when calculating the target salary line contained in the agreement. The state's two personnel systems have salary schedules that contain about 80 salary ranges and 11 intervals, or steps, within these ranges. Each job is assigned a salary range, and each employee is assigned to a particular step within that range depending upon experience, job tenure, and other similar items. To factor out the effect of different levels of experience, we based our average salaries on Step G in the salary schedule rather than on actual salaries for all employees in the job.

To reconstruct the regression line contained in the agreement, we used 1985 salaries and job worth scores for the 1984 benchmark jobs. To determine the state's goal per the terms of the agreement, we calculated a target salary line that was 95 percent of the regression line. We identified the number of benchmark jobs that fell on, above, and below this line in 1985. To determine the state's goal for 1991, we adjusted the 1985 salary line for general salary increases and calculated 95 percent of the adjusted line. We plotted 1991 salaries and job worth scores for the 1984 benchmark jobs against the 95-percent line and identified the number of benchmark jobs that fell on, above, and below this line in 1991. The difference between the number of jobs below the 1985 target line and the number of jobs below the 1991 target line provides one measure of the state's progress toward meeting the terms of the agreement. We did not review the state's method of selecting the benchmark jobs or the job evaluation system used to produce the job worth scores.

For a further view of the state's progress, we analyzed a second set of jobs, using data on Department of Personnel jobs only. We did not use information from the state's other personnel system managed by the Higher Education Personnel Board because historical personnel data were not readily available except for those jobs included as benchmarks. From the Department of Personnel's 1,897 jobs, we eliminated 924 because the state had not evaluated them on its point factor job evaluation system, and therefore, the jobs did not have job worth scores. For the remaining 973 jobs that had job worth scores, we eliminated 544 more because

- 343 were not evaluated in 1985 or were reevaluated between 1985 and 1991, and the job worth scores changed;
- 163 had no incumbents in either 1985 or 1991;
- 25 were revised and their job content changed between 1985 and 1991; and
- 13 were exempt from the standard pay schedule.

We called the remaining 429 jobs our "refined data set." We plotted 1991 salaries and job worth scores for these 429 jobs against the 1991 target salary line and calculated the number of jobs on, above, and below the line. We plotted against the 1991 target salary line job worth scores and what 1991 salaries would have been without comparable worth adjustments to determine how many jobs would have been on, above, and below the line had the adjustments not been made.

We also divided the jobs in our refined data set into intervals based on their job worth scores. The scores within each interval can vary by as much as 10 to 12 percent. We chose intervals of 10 to 12 percent based upon advice from a member of the firm that developed the state's point factor job evaluation system. He said it is logical to group jobs with job worth scores within 10 to 12 percent of each other in the same category for compensation purposes. In other words, it is reasonable to assume that jobs whose job worth scores fall within 10 to 12 percentage points of each other should receive about the same compensation. To calculate the intervals, we started with 81, the lowest job worth score, and added 9 points, or 11 percent, to this score. This calculation gave us the ending score for the interval—90—and the beginning score for the next interval—91. Subsequent intervals were constructed using this same methodology.

We assigned each of the 429 jobs in our refined data set to an interval based on its job worth score. We calculated the 1985 and 1991 average salaries for all the male-dominated, female-dominated, and mixed jobs in each interval. To determine how female-dominated jobs had progressed in salary relative to male-dominated jobs, we divided the salaries for female-dominated jobs by the salaries for male-dominated jobs for both 1985 and 1991 and compared the percentages.

To estimate the state's cost to implement the comparable worth agreement, we obtained data on the state's comparable worth appropriations from state law. To estimate the cumulative cost, we compounded the appropriations over the term of the agreement. We

adjusted each fiscal year's compounded appropriations by the previous year's inflation-based general salary increase.

We also obtained data on the state's total actual and estimated expenditures for all salaries and benefits for fiscal years 1986 through 1993, because consolidated data on final appropriations were not available. The expenditures include salaries and benefits for certain jobs (such as nonclassified) that are not eligible for comparable worth adjustments. Therefore, many more employees are included in the total expenditures for all state salaries and benefits than could have been affected by the implementation of comparable worth. Nevertheless, because this was the best information available, we compared the estimate of the state's cost of implementing the comparable worth agreement to that of the total salary and benefit costs.

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